NEWSLETTER
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JACG

JUNE 1987

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THE JERSEY ATARI COMPUTER GROUP

BBS
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IN THIS ISSUE

EDITORIAL

June 1987 and a milestone that I wonder just how many of us know. It was five years ago (June 1982) that GEMINI ENTERPRISES first began advertising in the JACG Newsletter. Congratulations, GEMINI, and thank you for your continuing support of the JACG and ATARI!!!.

I just received my Summer, 1987 issue of the ATARI EXPLORER; should it be renamed the ST EXPLORER? A couple of statistics: of 8.75 pages of advertising, 3.25 were 8-bit, 5.50 were 16-bit; more alarming - of 30 and 1/6 pages of reviews - there were 14 ST reviews utilizing 26 pages; and only seven 8-bit reviews taking up only 4 and 1/6 pages. I called the EXPLORER and was told that they are getting neither the 8-bit ads nor the 8-bit reviews. Get me a clothes-pin, my olfactories are being assailed! Is there a combination afoot to either bring about (or hasten) the demise of the 8-bit ATARI? According to the EXPLORER, by Christmas of this year there will be another 1,000,000 8-bit ATARIs sold in the U.S. Is this the last "dumperoo" prior to "pulling the plug"? Come on ATARI, if your own "house organ" isn't supporting the 8-bits...what IS going on in ATARILAND? I certainly hope that ATARI isn't about to try to leverage its' large, supportive and vocal base of 8-bit users into investing into the ST (which, by all means, is a superb machine); thinking that an imbedded base of ATARI 8-bitters is automatically an almost guaranteed base for the sale of ATARI 16-bit machines. I, for one will view with askance a dimunition of support for the 8-bit; what is to prevent the same thing from happenening in the future with the ST? Definite food for thought. D. B. Noyes

MARK YOUR CALENDAR !!
JACG
Meeting Schedule

JULY 11, 1987

ATARI

POWER WITHOUT THE PRICE

OVER-THE-COUNTER EXCHANGE
ON DOA DEFECTS
NINETY-DAY ATARI WARRANTY

ST COMPUTER SYSTEMS

**68000 PROCESSOR — 8MHZ CLOCK — MIDI INTERFACE
SERIAL & PARALLEL PORTS — TOS OPERATING SYSTEM
WITH GEM — 640X400 MONO RES — 512 COLORS
640X200 COLOR RES**

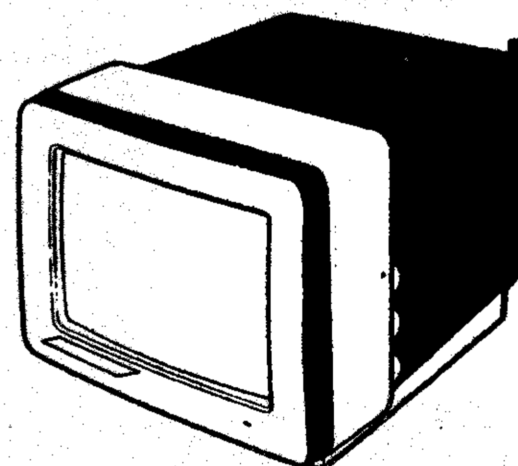
FREE
WITH SYSTEM PURCHASE-
BASIC LANGUAGE

520ST 512K RAM CPU WITH
WITH MOUSE CONTROLLER AND TV OUTPUT

MONO SYSTEM $499.95

COLOR SYSTEM $699.95

SYSTEM CONSISTS OF:
520ST CPU WITH MOUSE,
SF354 SS, DD DISK DRIVE &
SM124 MONO MONITOR OR
SC1224 COLOR MONITOR



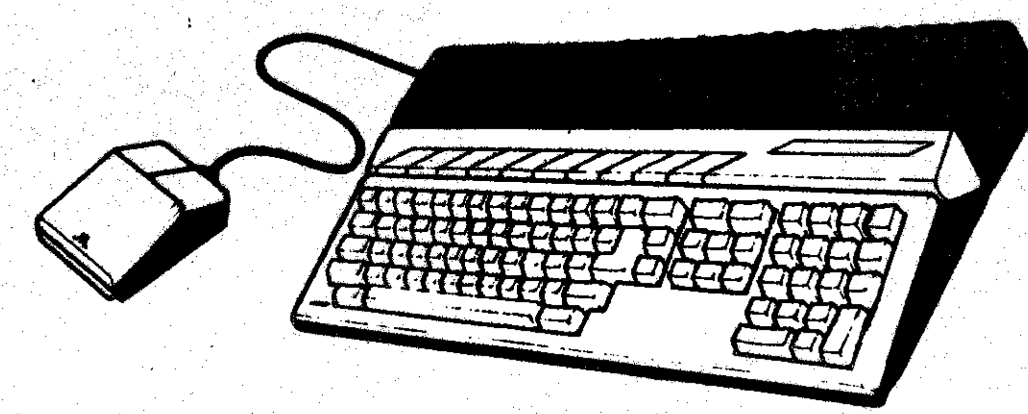
1040ST 1.024 MEG RAM
***WITH MOUSE CONTROLLER & BUILT-IN
DS, DD 3.5" DISK DRIVE***

MONO SYSTEM $699.95

COLOR SYSTEM $899.95

SYSTEM CONSISTS OF:
1040ST CPU WITH BUILT-IN
DS, DD DISK DRIVE & MOUSE
SM124 MONO MONITOR OR
SC1224 COLOR MONITOR

SHD204 20 MEG HARD DRIVE	574.95
SF354 SS, DD DISK DRIVE	149.95
SF314 DS, DD DISK DRIVE	209.95
SM124 MONO MONITOR	159.95
SC1224 COLOR MONITOR	319.95
SMM804 DM PRINTER w/cable	189.95
SX212 300/1200 MODEM	89.95



***SUBSTITUTE SF314 FOR SF354
IN 520 ST PACKAGE — ADD*** $69.95

GEMINI
ENTERPRISES

**86 RIDGEDALE AVENUE
CEDAR KNOLLS, NJ 07927** **267-0988**

YOUR ATARI CONNECTION

President's Corner

T. Pazel - JACG

As I sit down to write this, I realize how little there really is to report about in the world of Atari. It seems the biggest bit of news are the Atari Fairs taking place nationwide, with more to come over the next year or so. I'm certainly interested in the one that is planned for New York City next year! From what I've read about them, they sound like a very worthwhile and enjoyable experience. I hope some of you will be attending.

The new products for the 8 bit machines, in particular the XEP-80, are still not available as of this writing. I point this out only because I'm anxiously waiting for the one with my name on it. Curiosity is the main culprit here. I have an Omniview in my old 800, but never really used it, mostly because of the quality of the display. Supposedly, the XEP-80 has a tremendous display (esp. on mono monitors), so as soon as I get hold of one and play for a while, I'll let you know what I think.

Another thing I'm rather excited about lately is a PD program called DAISY DOT. In a nutshell, Daisy Dot gives your Epson/compatible printer the ability to print in NLQ, all in software. I was quite impressed with the results on my RX-80. You are provided with 5 fonts and the ability to design and save your own. Daisy Dot accepts as input any file that's been "printed" to disk. AtariWriter Plus and PaperClip are the only word processors I know of that allow you to do this. All you do is choose a font, tell it the name of the text file, select a "quality" of printing and off it goes! The only word to describe it is...NEAT! Hopefully, we can arrange to have it placed in our library. Until then, please see me if you're interested in finding out more about it.

Last, but definitely not least, I would like to ramble a bit about what is probably the most active part of the JACG now, the BBS. As some of you may know, we've upgraded to 2400 baud and the 20 meg drive is humming along nicely. More and more stuff is getting uploaded all the time for both the 8 and 16 bit machines. It's a great way to ask questions (between meetings), make new friends and enjoy your computer and modem. Also, the "restrictions" have been lifted somewhat on callers. Non-members get 1 call/day for 15 minutes, but with unlimited downloads. Members get 3 calls/day for a total of 40 minutes, also with unlimited downloads. Moreover, for every 2 functionally valid uploads you do, you will be given an extra 5 minutes of access time a day, up to a maximum of 60 minutes. I certainly encourage the use of the board (I use it 2 or 3 times a week myself). Please do so.

Until next month, use your Atari!

Stuff-In Stories

W. E. Brandt - JACG

One of the newest additions to the JACG 8-bit disk library is a program called "Stuff-In Stories". It is a "Mad Libs" type of game where you are asked to provide a number of nouns, verbs, adjectives, and adverbs. These words are then plugged into a story. The intent is to come up with something humorous. The game can also be educational by adding additional restrictions to the selection of words. For example, there could be a "German" or a "French" story, or any other language where the words can be typed using English characters.

Usually when playing a "Mad Lib" type game you are asked to provide various types of words without any idea of how they will be used in the story. In order to try and make it easier, this game includes menus of preselected words for the blank spaces in the story. In this way for each word you are asked to supply, you can either pick from a menu of eight words, or type in your own word.

When you have finished providing all the words, the story is shown on the screen. You can page forward through the story, but you cannot page backward. However, when the story is complete, you can start from the beginning again. At the present time there is no option for saving the story on the disk. The only way to preserve the story is to have it printed. Since printing is done using the LPRINT command, it should work with any 80 column printer.

Although the initial menu in the game indicates there are ten stories, only two of the stories have been completed. The Holiday Story is based on the poem "The Night Before Christmas" by Clement Moore, and the Cooking Story comes from a cheesecake recipe in the "Pies and Pastries" volume of the Time Life cook books. This leaves eight slots for adding your own stories. Or if you have any good stories to share, send them to me and I will use them to expand the JACG library version. While you are at it, if you have any suggestions on how to improve the program code, please let me know. I expect there are several places where it can be improved.

The program is written entirely in BASIC. It is interesting to note that despite BASIC having a reputation for being "slow", this program, with over 700 lines of code, runs very fast. As a final note, the initial title screen has a border of letters which spell out a message. Hint: it reads counter clockwise.

Super Short-cuts for Your 8 Bit System

Assembled from many various sources

Presented here by

TERRY KOELLING
WB4LEJ
LILBURN, GA.

Quick Ram Check

ecks ram from just below basic down to location 10.

) ? FRE(0): GOSUB 10

ype RUN and the screen should show numbers down left side ounting DOWN BY 4 locations. It should end with;

RROR- 2 AT LINE 10

GTIA or CTIA

ome older systems had CTIA video chip and could not display he newer modes of graphics.

) GRAPHICS 10
) GOTO 20

ype RUN. If the screen goes black, then you have the new GTIA. f it goes blue, you have the CTIA and should upgrade.

A or B rev. ROMS

der systems had "A" ROMS and they had some bugs. "B" ROMS orrected them.

PEEK (58383)

)" ROMS=0...."A" ROMS were generally 56, but anything other han 0.

More on ROMS

? PEEK (64728)

If=162 then 400/800 system, otherwise, XL

? PEEK (65528) 400/800 only

221="A" ROM
214="A" PAL ROM
243="B" ROM
34="B" PAL ROM

? PEEK (65527) XL only

10=1200 XL 1st. Rev.
11=1200 XL 2nd. Rev.
1=600/800 XL 1st. Rev.
2=600/800 XL 2nd. Rev.

Which Basic Rev. do You Have?

? PEEK (43234)

162= Rev. A (Almost all 400/800)
96= Rev. B (Early XL's. Many serious bugs. Get Rev. C.)
234= Rev. C (Latest and greatest.)

To Force a COLD START!

Type A=USR(61733) for 400/800
A=USR(58487) for 1200 XL
A=USR(58484) for 1200 XL WARM START

Turn Off Antic

To speed up processing (like when doing sorts), turn off ANTIC. (Screen goes black)

POKE 559,0 = off...POKE 559,34 = on

If your screen is set up with a picture (format) that you want back, then first PEEK (559), and save the value. When you want to restore it, just POKE that same value back into location 559.

Disable the BREAK Key

You may want to protect your program from someone using the BREAK key to stop it.

POKE 16,64 and POKE 53774,16 at the start and after each GRAPHIC command.

Reboot With RESET Key

You may want to force a re-boot from disk if someone hits the reset key, perhaps in order to break into and list your Basic program.

POKE 580,1 in your program

Disable the Keyboard

To disable the keys of the keyboard from your program.

POKE 16,255

Make Your BASIC Program Unlistable

You may want to protect your Basic program so no one can "see" your code.

1) POKE 202,1...will erase your program after anything that causes the "READY" prompt. ie..END or RESET or BREAK.

2) Add the following line to your program.MAKE SURE YOU HAVE A BACKUP OF YOUR PROGRAM WITHOUT THIS LINE!!

32767 POKE PEEK (138)+256*PEEK (139)+2,0: SAVE "D:Filename": NEW

Type..GOTO 32767.
The program can be executed, but not listed!

Turn Off Beeps When Loading Programs

POKE 65,0 = off....POKE 65,3 = on

Start the ATTRACT Mode

POKE 77,129

Output to Printer Instead of Screen

POKE 838,166: POKE 839,238

Back to the screen!!

POKE 838,163: POKE 139,246

16-BIT VICE NOTES

Tom Shoosmith - JACG

Thanks go out this month to Eric Jacoves for his excellent demo last month of Degas Elite. More and more of you are coming foward to do demos and that is an extremely good sign! Our ST library is ever growing and we presently have Paul Machiaverna working on creating a menu for ST library disks. Charlie Miller, our ST disk librarian, has put in alot of time and effort into our library and the results are a quality ST library. Speaking of the library, I encourage everyone to support both our 8 and 16 bit libraries, there is something there for everyone. You may even find something you would like to demo! Please, if you want to do a demo, feel free to let me know.

Our amount of BBS users on the BBS is still growing! We have plenty to offer. The ST downloads now number somewhere over 50. Not bad, considering the download area has only been open a few weeks. Uploads are encouraged! If you haven't called the board yet, give it a call at 298-0161. JACG members get increased time, calls, and access to special download areas. Recently, additions to the ST download area have been: Zenith - a fairly decent terminal program that was uploaded by a member of the Idaho Atari Club, Ybatch - a Ymodem desk accessory that can be used with a Gem based terminal program, Stvide - a desk accessory screen saver, Scrsaver - another screen saver thats a .prg, and Roms - a program that checks what version of Rom you have. Give it a call, I'm sure there is something there for everbody. If you are a frequent caller of other BBS's, please post our BBS phone number.

Optimized Systems Software,Inc. has announced the release of Version 2 of Personal Pascal. In Version 2 you can specify where various files will come from (what drive, what directory), especially handy for hard disk or ramdisk users and those with only one floppy disk.

The Editor is a new Gem enhanced version. Up to three files may processed at once and you may move text from one file to another. You can use your choice of menu options or command keys, making it more flexible than any editors available to the ST. The editor scrolls up and down faster than the current editor.

The Compiler: arrays and records now have a maximum size of 16 megabytes (for upgraded machines). Read and Write work with any kinds of files. You can use a simple compiler switch to choose whether the type Integer uses 16 bits (a word) or 32 bits (a double word). A new type, Short_Integer, has been added to allow you to make your

type declarations as descriptive as possible. With the limitations of Version 1 gone, you can now write bigger programs.

The Library has undergone changes. Turbo compatible screen procedures have been added (clear screen,Gotoxy,etc.). More of the underlying Gem calls have been made accessible. The most usable BIOS and XBIOS calls have been predeclared for your use. Address and Pointer functions will let you more easily manipulate system memory locations. Screen load, save and restore functions will make working with screen images (Degas format picture files) easy.

As a special offer to registered owners of Version 1, Version 2 is available from OSS for $29.50 (including shipping). Suggested retail with be $89.95.

Michtron is currently offering upgrades of their BBS 2.0 to 2.1 for $5.00. Upgrades are also available for 1.X to 2.1 for a little higher price. For more details you can call Michtron at 313-334-5700 or their BBS number at 313-332-5452.

This months whatever-happened-to goes out to QMI, Inc. Over five months ago, QMI started taking orders for upgrades of ST-Talk versions 1.0 and 1.1; for the newest version, ST-Talk Professional 2.0. Sending in your original disk and $10 would assure you a copy of the new version, with an expected delivery date of early February 1987. Well, it's now June, and still no ST-Talk Professional 2.0! QMI keeps making promises of delivery, but still no ST-Talk Professional 2.0.

NOISE from NOYES

D. B. Noyes - JACG

Another month gone by...and no fix from ICD on the ROM chip in their Multi I/O Board for the printer spooler portion. Fair warning ICD - next month I WILL review the board; care to guess how the review will go if their is no fix? Stay tuned for more.

In the Public Domain...I have just given Sam Cory "Daisy-Dot", along with complete documentation. Have heart, those of you with Epson and Star 9-pin printers, who hunger for near letter quality. By software and graphics mode alone...Roy Goldman has permitted you to produce NLQ. The following text file was done in the Sans-Serif font: ▶

DAISY-DOT
By Roy Goldman

Daisy-Dot is an original printing utility that *will revolutionize* dot-matrix printing with Atari 8-bit computers.

Near Letter Quality along with a simple yet powerful NLQ Font Editor produce professional documents. Here's a list of features:

- Supports Epson and Star 9 pin printers.
- Compatible with most word processors.
- Up to *4* different graphic densities.
- Prints PROPORTIONAL fonts at up to *8* times the density of draft mode (Print Shop and Typesetter print at a MAXIMUM of only 2 times draft mode!)
- Flexible character spacing manipulation.

- Comes with *5* great fonts:
  - Roman
  - Sans-Serif
  - Script
  - Block
  - *Ohio*
- Revise and generate fonts using the DAISY-DOT FONT EDITOR, with:
  - Joystick control
  - Printer module
  - *Proportional font design*
  - Characters up to 19 columns wide and 16 rows high
  - Range of 91 ASCII characters
  - *14* commands

Daisy-Dot comes with clear and complete documentation.

Not bad...eh? Of course, speed is not a feature; I would suggest setting up your printer with a spooler (or buffer), chaining several files, and then doing all those things aroud the house that computing seems to get in the way of - while your printer is churning away!

WORDS ABOUT THE ST LIBRARY

Charlie Miller-JACG

This month, besides letting you know what the disk of The DISK OF THE MONTH will be, I have a bit of information to pass on that I think may be of interest. I even have a question of my own that I'm looking for an answer to. But first, to the informative paragraph.

As was previewed last month I would like to announce that this month's Disk Of The Month will be the JACG library's #33. This disk features 16 picture files saved in the Tiny format. This, as you may or may not know, is a compression scheme for picture files for all the Degas modes, or Neo files as well. Included on the disk is the file TINYVIEW. Tinyview is the Tiny format's equivalent of Slide.prg. It is used to display the Tiny format pictures directly from their compressed state eliminating the need to uncompress the files first before looking at them. Also on the disk is the file Tinystuff.prg. This is the compression utility to compress the files in the first place. It is included for your convenience so you can use it to condense you present picture libraries if you wish. The pictures that are included on the disk came from Germany via Joe Kennedy (where have I heard that name before?). That dosen't't guarantee that they are exclusives and no guarantee is implied or expressed that you have positively not seen any of them before. Gamble a little, splurge for the low priced disk of the month, and see if the 16 files are all new to you are not. After all, the library is not only intended to bring you some useful P.D. material, but also to contribute towards the support of your club; so why would you want to refuse? Some of these picture files are digitized with a color digitzer and may be of use to you in determining whether or not you would like a digitizer of your own (if the thought has crossed your mind).

Next month I will offer disk #27 as the Disk Of The Month for July. This disk is the one with the ACC_LOADER program on it. Also included is a fair selection of various .ACC files for your pleasure (or displeasure if the CRABS get the best of you). Some are useful, some cute, and some just interesting (if not practical for much else).

Now, I'm not the type who makes a big deal out of throwing around compliments in general, let alone to a manufacturer. As a matter of fact, I wouldn't mind seeing a monthly column that aired gripes about software publishers and hardware suppliers. You know the ones I'm referring to. The folks who try to commit you to a contract by breaking shrinkwrap and then giving you nothing in return in that same "contract". Or the perveyors of "Vaporware" that is always promised "REAL SOON", with an elaborate advertising budget that probably would be better spent getting the product on the dealer's shelves (with a bit less fanfare and a lot more punctuality). But once in a while I happen upon a product and/or service that I don't mind mentioning. The product that caught my attention is my 1/2 meg upgrade in my 520ST. This upgrade comes from THOUGHTSPACE DEVELOPEMENT in Berkeley California. When I decided on upgrading my ST I asked all the companies offering an upgrade to send me their spec. sheets, price schedule, and installation instructions, in order to make my evaluations upon. At the time, Thoughtspace not only had the lowest price and even lowest installation fee (if you opted for them to make the installation for you), but they also had what I thought was the soundest method of making the upgrade. What I liked most about their upgrade was that they used an auxiliary board that wasn't just double-backed taped somewhere or seated into vacated chip sockets for it's only mechanical attachment and support. Granted, this board requires chips be removed, the upgrade plugged in the vacant holes also, but in addition, straight bare wire jumpers through the motherboard (and to and through the upgrade board) in my opinion made for a very solid installation. It also provides for only four additional solder connections on the mother board's far side by means of a four strand flat cable that goes through a hole and to the MMU chip. That sounded so much better to me then the other methods available such as trick adaptors that displace the MMU chip, plug in that socket and relocate the MMU on it's top. Although that sounds simple, it didn't appeal to me as being as bulletproof as the hard wired board. Since, at the time, Thoughtspace's's installation was so cheap, they have since then realized they were selling themselves short, but are still competitive; I opted for them to make the installation. I was contentedly computing away for 9 months with the luxury of a 512K ramdisk. But alas nothing is forever. About two weeks ago my ramdisk refused to be recognized, and experimenting indicated that my second 1/2 meg had gone south. Now you are probably saying, "why recommend an upgrade that died on you"? I'll tell you why; I was totally impressed with the service in solving my problem. After I failed to fix my ST with the phone information I received so readily, I packed off my motherboard to Berkeley, where the problem was diagnosed as a DRAM chip that expired. The upgrade was under a 1 year warranty and was replaced and shipped back to me n/c in (this is my favorite part) a week's time. That is the type of story about service that I like to talk about. Granted, I do like to grumble and complain about the other side of this coin, but am not happy when I'm done as in this case. As for the memory chip that died, I must admit that maybe that isn't great press on the product, but believe me, I was satisfied with the upgrade before this failure, and had wanted to mention my satisfaction before this but, just never did. I can forgive one chip; and the service I got made it just short of a painless experience. I don't know how many 512K 520STs are out there in the club, but thought that this story might be of use to some who may be ►

onsidering the operation. Like I said, I'm more at home riticizing than complimenting, so maybe some day we can ick around the story of a certain spreadsheet that I had o wait 15 months for the product that I thought I had urchased when I initially plunked my money down.

Now for the question I had. In looking for material or the ST library I came across a file LOOKSE.ARC. It is upposed to check for and let you know if your ST's eyboard has the dreaded SHIFT-SE bug in it. Well I igured that I have one of the earliest ST's that ever scaped Taipai, and that I would probably have it. So I ecided to run this little diddy and have the sad verdict anded to me. Sure enough, my ST has got it. Now that I now I have it I'd like to know what it is, what it does, nd what I do about it. I have a feeling that I'M gonna ind out that the SHIFT-SE bug blows up the first DRAM hip encountered above in the first 512K that was nstalled in the machine. Any serious light that can be hed on the subject would be appreciated.

So, till next month keep the iced tea out of the eyboard, and here's wishing you no kaputs in the omputes.

The JACG Zmag Articles Part I

Zmag is a weekly publication of Syndicate Services, ocated in Middlesex, NJ. Ron Kovacs, the SysOp of the yndicate Bulletin Board System, edits the newsletter, hich is distributed nationwide to computer Bulletin oards such as our own JACG BBS, and information services uch as CompuServe and GEnie.

The Jersey Atari Computer Group was selected as the mag User Group of the Month for May, 1987. Articles by ACG members appeared in the May issues of Zmag, and the irst two of those articles are reprinted below.

(The introductory article in Zmag 50 was written by ACG President Tom Pazel)

ZMAGAZINE MAY
OT ATARI NEWS AND REVIEWS ISSUE 50

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ay 4, 1987

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x ZMAG USER GROUP OF THE MONTH
...Jersey Atari Computer Group.....

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he Jersey Atari Computer Group (JACG) was founded in 981. The original meetings were informal one-on-one iscussions and as interest grew, the discussions led to egularly scheduled meetings in one of the six member's omes. ▶

From those humble beginnings, JACG has evolved into one of the nation's premier Atari user groups with several hundred members and an award-winning Atari newsletter.

As more and more people took an interest in the fledgling Atari user group, meetings moved from the homes to a Bell Labs conference room (since many of the original members were employees of Bell Labs). Through the efforts of this group, JACG was able to obtain the use of the Bell Lab's auditorium in April 1982, where meetings are still held today. The auditorium can easily seat 400 people, contains a projection TV and has a tremendous sound and lighting system. We could hardly ask for a better facility.

The JACG newsletter was first published in December 1981 and through the hard work of it's editor (and 1st JACG Prez), Dick Kushner, it also took off. In the summer of 1982, Art Leyenberger took on the responsibility of newsletter editor. Art was able to expand and refine the newsletter into one of the best. Each issue was usually 24 to 32 pages long and had a press run of hundreds of copies per month (Art is currently an editor on the staff of Analog magazine).

Membership really started to soar and by the summer of 1983, stood at about 300. In November of that year, Frank Pazel took over the task as newsletter editor. By then, it was running about 800 copies per month. The current membership is close to 500 with the newsletter running over 600 per month.

Dick Kushner, one of the founding members, retired as president in November 1984 and Art Leyenberger took over the job. The current president is Tom Pazel.

The current group of executive officers include Tom Shoosmith, the 16-bit Vice President and Doug Van Hook, 8-bit Vice President. These guys are responsible for putting together the monthly meetings. Tom also helps with the BBS (as a sysop) and Doug is involved in helping out with the disk library. The treasurer, Shree Vandenberg, handles the financial bookkeeping and Dave Noyes, the newsletter editor, manages to organize and put together a great newsletter every month. Bob Mulhearn is the secretary and membership chairman.

Sam Cory, chief disk librarian, along with Dave Green, Doug Van Hook and Charlie Miller, perform the task of reviewing, organizing, documenting and distributing the bountiful disk library to the membership. Gary Gorski, Tom Shoosmith and Mark Knutsen oversee the smooth execution of the JACG BBS.

Meetings are held on the second Saturday of each month in the Bell Labs auditorium in Murray Hill, NJ. A typical meeting consists of a flea market, where members can swap ▶

and sell hardware, software, books, magazines, etc.; a question and answer period, where members can get answers to the questions they have; several demonstrations of hardware/software products as well as the feature software of the month.

The JACG is proud of what it has accomplished over the past 6 years and invites you to share the wealth and become a member. Dues are $25/year.

If you're interested in joining JACG or receiving their newsletter contact:

Jersey Atari Computer Group
Robert P. Mulhearn, Membership Chairman
8 Crescent Road
Pinebrook, NJ 07058

ZMAGAZINE MAY
HOT ATARI NEWS AND REVIEWS ISSUE 51

May 11, 1987

Xx Zmag User Group of the Month
...Jersey Atari Computer Group...

%%%An Editorial View%%%
from
the
JACG

by Dave Noyes
Editor - JACG Nesletter

WHY A USER GROUP????

Two and one half years ago I purchased my first computer. It was an ATARI 800XL...supported by a TRAK AT02 disk drive, a PANASONIC KXP-1090 printer and a SYLVANIA 13" color TV for a monitor. Believe me, I knew from nothing...when I got the package home - I didn't even have a DOS and, consequently, didn't get much accomplished. On my own, I discovered various books, and of course, ANTIC and ANALOG. In due course (year later) I came across a JACG newsletter. A user group, I thought, "what a splendid idea". I bought the newsletter, attended the next meeting, joined the JACG...and I've been a member ever since.

I would not be exaggerating to say that I learned more in the first two meetings that I attended than I did in my first year of ATARI ownership. I discovered a resource to answer every question that I had, learned where to buy and not buy, what to buy and not buy, and where to go and who to call when nothing with the ATARI was going right. If only I had known of JACG's existence when I first came into contact with ATARI!

Now, through editing the JACG Newsletter...I can see first hand the dynamics of a user group - a GOOD user group. Symbiosis between those with a certain skill or knowledge, and those in need of that skill or knowledge. One in need at one point may very well be a purveyor of knowledge or skill at another point.

There is give and gain - unselfishly. There is no "stupid" question, there is no "ridiculous" answer. From "just bought an ATARI" to a long time owner, from "400" to the "ST"... there is room for all, there is need for all - A USER GROUP - and the JACG sets well among the best of them.

If you want to read the latest Atari news and reviews, download YOUR copy of Zmag from the Syndicate BBS in Middlesex, New Jersey (phone (201)968-8148), or the JACG BBS in Roselle, New Jersey (phone (201)298-0161).
Next month: the remaining JACG Zmag articles!

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TREASURER'S REPORT MAY 1987

S. Vandenberg - JACG

STARTING BALANCE 5/1/87		$3356.18
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What will it be? ST or XE

Paul Machiaverna - JACG

Being a user for over four years, I have seen a lot f changes in the computers produced by the company called tari. I bought an 800 in February of 1983, a 130XE in ugust of 1985, and a 520ST in December of 1985. I still wn all three machines (the 800 is for sale, though). I ust admit that there are things I like better about the 8 it machines and things I like better about the ST achines. I joined the JACG only a few short months ago nd have been amazed at the puns which are thrown between he 8 and 16 bit Atari owners. I find myself defending oth machines, depending upon to whom I am talking! When talk to an ST owner, I defend the 8 bits. When I talk o an 8 bit owner, I defend the ST. And when I speak to a on-Atari user, I defend all of Atari! I just want to ive some views on the two completely different lines of omputers Atari has to offer. The specs, the ads, the pinions of users, and the puns made at the meetings can e a very confusing and frustrating experience to the otential Atari computer buyer or to those who bought one nd asks themselves, "Did I make the right choice between the ST and XE?" So, I hope to ease up some of the tension y simply telling you what I have found that I like better r worse of both machines.

First, let's talk about the 8 bit computers. When I ought my 800, I immediately realized just what an ncredible machine it really was and still is, despite the opular view that it was a game machine in a computer's lothes. I learned to work with computers on an old Apple [+. What a nightmare that was! Applesoft BASIC is still he worst dialect of BASIC I have ever used. The Apple as way over-priced, and price of it's software was idiculous. When I checked out the Atari 800 I saw that t was a workhorse. Terrific graphics and sound did mpress me, but there was a lot more there. The 8 bit taris are very easy to program with respect to many other omputers and, because I was still new to computers, that as a very important point. I used the 800 for about two nd a half years. In that time I had used Atari & Atari icrosoft BASIC over and over again to write programs to olve problems in my college major, electronic ngineering. I wrote all my reports with Atariwriter, and fter a tough day of studying I could boot up 'Miner 49'er' and have fun. My being very into the field of ectronics and after taking a few EE courses in college, had the idea of designing and building hardware projects connect to my Atari. The 800 served my early projects simply connecting them to the joystick ports. But, I ad about the power of using the parallel bus on the wer XL and XE computers. When I decided to buy an 0XL, I saw a new kid in town (actually in Gemini!), the 130XE. Hear was a 128K machine with a greatly sleeked down look, the parallel bus exposed, and a beautiful price. From the first time I disconnected my 800 from the I/O daisychain and put the 130XE in it's place I was hooked! No more loading in Atari DOS or MYDOS from disk for a simple disk directory. Just let the RAMDisk hold the DUP.SYS and I had it made. The Happy Enhancement does a sector copy in one simple pass. And, software vendors, such as Xlent, showed just how valuable the extra memory was to applications. Plus, I really like the totally redesigned keyboard of the XE. What else could I want from the Atari corporation.

Enter the Atari ST computers. During the summer of 1985, the pages of Analog, Antic, and COMPUTE! were all talking about the new and incredible Atari computers on the way to the market. These were, of course, the 260ST and the 520ST. The 260ST who? Yeah! You know! The vapor computer! I eagerly read all the information on the STs; the specs, the graphics, the speed, the power! Finally, the machines hit the stores and I was able to see it in action. The lack of software was a little discouraging, but I saw once again that Atari had 1 winner on it's hands. The ST includes standard ports for both a printer and an RS-232 device (Modem). On the 8 bits I was forced to buy the very expensive 850 for either I/O capbility. I started to get interested in using a computer as a tool for creating CAD quality drawings and I saw that a couple of such software products were announced. I waited until the programs reached the market, then I bought the 520ST.

To try to wrap all of this history together, I now summarize what exactly I use each computer for in my daily use. I don't really use my 800 anymore. I wish to sell it so I can use the money towards a hard drive for my ST. I use my 130XE for all my BASIC programming, create a newsletter for my place of work using Typesetter 130XE, and I have interfaced it to a model railroad via a custom hardware project. I am yet to find a better BASIC than BASIC XE by OSS. It follows some of structure of PASCAL and is extremely fast. Typesetter 130XE is a great program for creating printware. The resolution of the hardcopies is incredible. I can take pictures from ComputerEyes and put them onto a page for a newsletter. I am able to utilize the expansion bus to yield more data bits than possible with the 800.

As for the 520ST, I have upgraded it to 1 Meg RAM, installed the TOS ROMS, and a clock/calendar chip. I use CAD prgrams for creating beautiful schematics and printed circuit boards for my hardware projects. Word processing is much easier due to the more advanced wordprocessors and the 80 column character screen. I used my homecomputer (ST) more than ever because I needed a really 'good' Pascal (Personal Pascal by OSS) for my programming classes, and I was able to make professional quality drawings for my reports in college. The price versus performance ratio of ST software is incredible.

▶

Relatively low priced software does a lot for you. The software on the ST is very fast and powerful for my uses. In contrast to other simular computers, Amiga & Mac, the ST gives a lot of power for a low price. The hardware peripherals are also kept at a low price. Plus, you don't need any special interfaces to connect your printer or modem.

What don't I like about the machines? My biggest gripes about the 8 bits are, a) no 80 column screen (sorry, bit-3 and others are horrible to my eyes!), b) no standard ports for non-Atari peripherals, c) software has slowed to a trickle and d) more advanced software applications (CAD) are either too slow to use or simply not possible. On the ST, my biggest gripes are, a) Atari can't seem to decide what is to be called a 'complete' ST (TOS ROMS change without notice, the Blitter chip is still vaporware, and Atari is giving the developers a hard time (GDOS)), b) difficult to interface hardware to the machine, and c) difficult to program the graphics capabilities, especially when compared to the 8 bits and their easy to use Antic video microprocessor.

So, what do I suggest you do? Think it over carefully between both machines if you are in the market to buy one. Have a clear and concise idea as to what you want and need a computer to do for you. Then compare the software capabilites and the price versus performance you can expect. Above all, talk to members of the JACG and try to get unbiased opinions about the machines. As far as us present Atari users are concerned, we must have bought the Atari machine which we felt was right for our uses. So, let's not waste anymore time on trying to show up each others machines and just simply keep at using or programming the finest in microcomputers, Ataris!

- - - - -

PC Board Designer

Paul Machiaverna - JACG

Are you into electronics as a business or a hobby? Do you design and build circuits? Do you layout your own printed circuit boards? Well, then here is a software package written just for you. PC Board Designer (PCBD) is a professional computer aided design package for the Atari ST line of computers. Using a computer for the tremendous task of designing PC board layouts has been around for quite some time, but it was only available on very expensive machines. Well, Abacus software has changed that by bringing us the PCBD. They state in the user manual that they chose the Atari ST computers for this software because of the great power available. My experience in electronics taught me just how tedious it is to layout even the simplest of PC boards. So, with that in mind and a great machine like the ST at my fingertips, I shelled out over a hundred bucks for the PCBD and this article tells about using the package. ▶

In using a computer for PC board layouts, you input a list of all components in a circuit and the connections t be made. Then you place the components on the desire board size. With PCBD you can usually stop there and le the program do the rest. What I am referring to i Auto-Routing, the most powerful feature. Auto-Routing i where the computer itself places the traces on the P board layout. The traces are the physical connection between the components. I have seen several PC boar designer programs available for the IBM and Appl computers which cost well over $500 and they don't includ this feature. Those programs are nothing more than CA programs which require your making all the routes of th traces. This is not so with PCBD as I mentioned above. Manual routing is, however, also available in case you ar not satisfied with the route of the trace made by th Auto-Router.

All components used on the PC board must be part of a disk library file. Abacus supplies a file with most o the commonly used ones. A seperate program is on the mai disk to enable your defining components which are special to your needs. You simply create a totally new component or modify an existing one and save it to disk. The library file contains all graphic and pinout information about each individual component. The graphic is what you would see painted or inked on any professionally produced PC board. Once you have listed all the components you are ready to input the connection list.

The connection list is what informs the program how the components are to be connected. For example, pin 1 of IC3 is connected to pin 8 of IC1, and so on. When entering the connection list the computer will alarm you if you are trying to make an impossible connection. This is when you enter a component not on the component list, or if you specify a non existent pin on an IC chip. What you must be very cautious about is that you don't enter an incorrect, yet legal, connection. The program is not able to recognize that you entered a connection different from the one made on the schematic.

Once the connection list is complete it is time to actually place each component on the PC board. The PC board is shown on the screen in perfect scale and size as defined by the user. In this mode you really get to see the power the ST really has underneath it's cover. Let's say we are to position a 40 pin IC chip on our board. On the screen we see the IC graphic as well as every connection made to it going to other components. Each line coming off the IC is in 'rubber-band' mode as you move the chip to desired location on the board. With this many lines coming off a component it looks like a Man O'War crawling across the screen. What is truly amazing is just how fast you can move the chip across the screen and also change it's angle of degree without any screen flicker. So, component placement is fast, easy, and not hard on the eyes. ▶

Now that you have input all the required data in the form of a component list, connection list, and board placement, it's time sit back and watch the computer do the hard part; Auto-Routing. You see each connection being made on the screen as you think to yourself, 'Would I love to see the algorithm for this!' The Auto-Router is very fast. Soon after you started the process you will see a complete and perfect PC board layout of the schematic circuit you entered. At this point it is a good idea to save the lists and the PC board design to disk. This way should you ever need to modify the design you won't have to enter all the components and connections all over again.

PCBD produces very well detailed hardcopies of the PC board layouts as well as a component layout picture suitable for transferring to the actual PC board. Remember that you now have to etch the PC board itself. The hardcopies are useful for snaping a picture of the layout and using photo sensitive copper clad boards the design transfer. I have used two different printers for my layouts; an Epson FX-85 and an Epson LQ-1500. The results from the FX are good, but the LQ is fantastic. Each trace on the LQ is well defined with a minimum of 'fuzziness' associated with most dot-matrix printers. There are also drivers for plotters.

PCBD has a wealth of other important features as well. Barriers can be created on the board to prevent the Auto-Router from using those areas for traces. This is good when you need room to drill a hole for mounting the board in a project case. The router can be used to create ground planes for RF projects which are sensistive to EM radiation interference. The Auto-Router will not always be able to make all the connections requested. Two majors factors which dictate whether or not a connection can be traced are a) placement of components on the PC board and b) the order in which you entered the connections. Fortunately, PCBD allows you to change both circumstances easily. If you need to move a component you simply highlight it with the mouse pointer and move it anywhere on the board. When you highlight it the rest of the components are changed to the familiar GEM ghost image and the name of the selected component is shown in a window on the screen, so that idetification is easy. If you feel that the order of your connections is preventing the Auto-Router from completing all of the traces, you can request that the program will change the order automatically. This removes the tedious task of having to edit the entire connection list by hand. Some more features of PCBD are choice of trace thickness, 45 or 90 degree angles of the traces, single or double sided boards, just to name a few.

With all the good PCBD does for the user, I hate to mention the bad points. The most serious drawback to this program is the maximum allowed board size. It is limited to approximately 6.5 by 4.0 inches. For a hobbyist this may be alright for most applications, but for any commercial use this is simply too small. I have been forced to split up a board into two parts to accomodate this problem. But, multiple boards used where one would do is more costly and definately not favorable even from a designer's point of view. Beware that if you are using an 80 column dot matrix printer you even have to limit yourself to a smaller size. This is because the FX80 and simular dot matrix printouts are produced in a 2:1 ratio. Therefore, the layouts are printed in twice the actual size. This is done so that the resolution will increase when reduced. Another drawback is that you can only use component indentification names, such as R10, upto 99. When I label components on a schematic I like to use numbers like 102 or 320 to easily distinguish between different sections of a circuit. Finally, note that you may run PCBD only on the ST Monochrome monitor.

Okay, being too critical is no good, but what burns me up is the fact that Abacus is no longer going to support this program. That's right, they released the PCBD along with some printer/plotter drivers and that's it. But, before I bought the program I spoke to Abacus about the board size limitation and they assured me that an updated version was near completion. So, I spent $130 and now I feel as though I'm stuck. So, I hearby ask anyone who uses this program or who is thinking of purchashing it to please contact me. I hope that with the support of more people showing Abacus that they shouldn't just leave a program to waste, we can persuade them to consider an update to the program. I guess not all software vendors can be as supportive of it's users as the guys at OSS.

Despite the drawbacks, I have found the PCBD to be a great time saver and I still recommend it to any Atari ST owner who builds there own hardware projects. I would appreciate any interested club member giving me a call concerning the above problem. My phone number is (201)-687-3878. Please call only between 11AM and 10PM, anyday. Thank you!

JUNE 1987 JACG 8-BIT RELEASES

S. Cory - JACG

116D***ICON SHOP & DOCS***DEMOED BY DAVE NOYES MAY, AND JUNE
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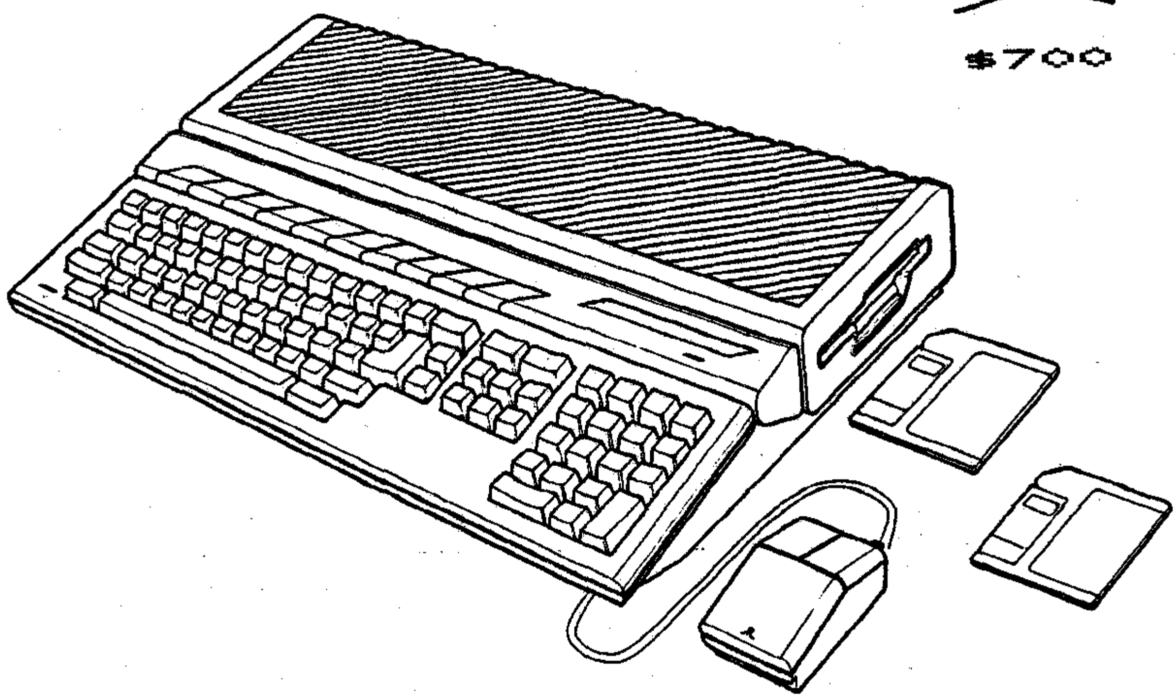
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FOOD FOR THOUGHT

W. E. Brandt - JACG

This is a proposal to form a temporary Special
nterest Group (SIG) to create a useful application to run
n the 8-bit computers. If it turns out well,
onsideration would be given to having it sold
ommercially, perhaps through ANTIC's software catalog, to
elp raise money for JACG.

uggested Application: Dietary Tracking Program
The program would allow food items to be selected
rom a large
database to create a daily/weekly menu. The
nformation for
each food item would include: calories, protein,
arbohydrates,
fat, fiber, calcium, iron, and sodium content.
otals would be
provided for each meal, each day, and each week. In
ddition,
weekly and monthly totals would be able to be stored.

pecifications:
1. The program would be written in BASIC to make it
asier to
load and modify.
2. The initial program would be written for the Atari
-bit
computers and would require no more than 48 KB of
AM.

ajor Project Components:
- Selecting food items
- Research on nutritional information
- Programming
  - Art for title screen
  - Background music
  - Screens for menus, instructions, and help
  - Menus and food item databases
  - Overall structure

roposed Project Steps:
- Organization and planning
- Producing small test program
- Completion of program coding
- Testing and revisions
- Release

his project requires a few people who are willing to
evote a few hours a week to help develop the program.
nthusiasm is more important than experience, but
xperience doesn't hurt. The target is to complete the
rogram in three to six months. If you have any comments
or questions, and/or if you are interested in this project, please contact W. E. (Bill) Brandt at 27 Mohawk Trail, Westfield, New Jersey 07090, home phone (201)-654-9387 (after 7 p.m.).

PDG

Doug Van Hook - JACG

If you're one of those people who vacations on the Riviera, Safaris in Dakar, and then jets off to Majorca, you have no need for this disk. If, on the other hand, you are not well traveled, or have children who need help with their Geography homework, or have forgotten where Europe is in relation to the rest of the world... buy this disk!

The public domain disk for this month is disk number 119D. This disk has programs on both sides. On Side A is a series of Geography programs, while Side B contains a group of challenging simulations. In order to confuse those who skim my article I'll review the second side first.

This disk was developed by the Portland Atari Club which is located in Beaverton, Oregon. The simulations on the disk are entitled; VOLCANO, OREGON, SQUARES, and MAKECHANGE. Out of consideration for the Oregon groups' heritage I have selected OREGON first.

The program simulates a trip over the Oregon Trail. You begin by purchasing Oxen, Food, Supplies, etc., and by specifying your marksmanship ability. A warning indicates that the better you claim you are, the less time you have to draw! The trip is a rough one with one feature I really got a kick out of; after you die, they still charge you for a Minister, a Funeral, and Notification of Next of Kin. Keeping in mind that you have been killed, the Chamber of Commerce wishes you better luck next time. If other pioneers are waiting to take the journey... Type "Y" and try again.

The next selection is my favorite! It seems in Oregon you either learn fast or die. VOLCANO has several options which provide the background information you need to solve the problems presented by the simulation itself. I suggest selecting SCENARIO first, DEFINITIONS second, and then try THE ADVENTURE... if you dare. The adventure plays very quickly, is fun, and contains scads of good educational material. Like a good book, you can't put it down 'til you finish. To quote the Scenario, "This program creates an adventure similar to those reported by some of the approximately 300 people who were camped around Mt. St. Helens on the Morning of May 18, 1980, and Survived." ▶

MAKECHANGE is a learning simulation for children between the ages of 7 and 9 who are learning how to make change. Good, but with limited appeal. The program begins by asking your name, and then asks you to give it $1.25 (example). It proceeds to ask HOW MANY QUARTERS ?

After you respond the program continues with Dimes Nickles and Pennies.

MAGIC SQUARE is played by arranging 15 numbers in sequence within a 4 X 4 grid. It's addictive, and reminds me of those little plastic tile versions which I wore my thumbs out on when I was a Kid. They were once popular promotional giveaways.

We now return to Side A of the disk, the GEOGRAPHY QUIZ. This program allows us to find places in AFRICA, EUROPE, INDIA, SOUTH AMERICA, the UNITED KINGDOM, and the UNITED STATES. The program asks you to locate specific cities and states on colorful maps. It is an improvement over States and Capitals because there are detailed maps of other areas of the globe. The only thing I didn't like is that after you have exhausted all your attempts to answer a question, you get no help with the answer.

JACG has many educational disks in our Library, some better than others. Among these, disk # 119D ranks within the top 5.

REVIEWS
of
Bop 'N Wrestle
and
Trailblazer

by Mindscape

Eli Tomlinson - JACG

It is always nice to see new software for the Atari computers. It is especially nice when it as good as Trailblazer. Trailblazer is an excellent arcade game with very well done sound and graphics. And, as for getting your money's worth, it is extremely addictive. The game is a race between what look like two soccer balls. There are 26 tracks, each which is an obstacle course made up of colored squares, each with a different attribute. The tracks also have many missing squares where the soccer ball can fall in and cause one to lose valuable time. The object is to complete each track within a certain amount of time, so that you can move to the next course. You must avoid falling in the voids by jumping. You have nine jumps per track, and you can also hit certain colored squares to jump without using your valuable nine jumps.

The program allows you to practice any three tracks, to race alone, against a computer opponent, or with another person. The game is very original, and very well done. Although it doesn't sound like a great idea for a game, it is one of the best arcade games in a long time.

With the good, there is often bad. Bad is being too kind to Bop 'N Wrestle, which will probably end up being much more popular than Trailblazer because of wrestling's popularity. This is also bad because if you bought Bop 'N Wrestle, you might vow never to buy another game by Mindscape.

The idea of Bop 'N Wrestle is simple. You control a wrestler who can fight against a computer wrestler, or another player. My first complaint is that this game takes forever to load. After it reads in what must have been every sector on side one, Bop 'N Wrestle prompted me to turn over the disk. It then seemed to read every sector on side two. The wait is most certainly not worth it.

The game itself is slow, and I felt that I had no control over the wrestler's movements. There are supposed to be a number of different wrestling moves you can use against the opponent. Because there are so many, most are a combination of two joystick actions. Unfortunately, I could almost never do anything but kick the opponent. The movement is very slow and blocky. I found this program to be no fun at all.

If you are still considering purchasing Bop 'N Wrestle, note that it requires 64K, and will use all of the 128K if you have an Atari 130XE. The package warns you that the game is slower with only 64K. I played with Bop 'N Wrestle on a 130XE, so only in my nightmares could I imagine this program on a 64K machine.

If you haven't been to your favorite computer store recently, you might be pleasantly suprised to find that new software has been coming out for the Atari. Some titles are Phantasie, and Rebel Charge At Chickamauga by SSI, Midway Battles by TDC Distributors, Gunslinger and 221B Baker Street by Datasoft, Autoduel by Electronic Arts, and The Pawn by Firebird, just to name a few.

EASTER EGG

Eli Tomlinson - JACG

Mr. A. Phule of Berkshire has discovered an amazing backdoor which, it seems, is resident in all recent Infocom adventures. Starting with the Enchanter trilogy, if you type in the command SAY LIRPA at the input prompt the entire text will be dumped on to the screen page by page.

If you have a printer you can direct the output to it instead by using the command SAY LOOF, or SAY LOOF LIRPA to dump to both screen and printer.

- From Page 6 magazine, April 1987.

Artificial Intelligence On Your Office Desk

By Donald Forbes - JACG

"Here is an artificial intelligence diskette that is more than just a demo. You might like to try it out." My friend and colleague Marty Brod is a computer nut like me, when he takes time out from making money picking hot stocks. "There is a good tutorial that you can print out."

I printed out the tutorial, all 40 pages, and Marty was right. The disk needs a PC that will run MS-DOS. It has a demo, but also includes an editor as well as a compiler, so that you can create your own expert system.

You are free to copy and distribute the disk, but if you want the whole system it will cost you almost $500. But the disk alone is an excellent introduction in nontechnical language to the mechanics of creating your own expert system. If you want a copy of the disk, call me (377-1208) and bring a blank disk to the next meeting.

The tutorial points out that many business applications of expert systems can be viewed as evaluation systems. The aim in these systems is to evaluate the input by matching it to one of several predefined categories. For example, credit analysis involves matching a borrower with a credit rating. Insurance underwriting can be viewed as an attempt to match a client with a risk category. Personnel departments match up employees or job applicants with categories of action (such as hire, or promote, or fire). Research and development projects which are aimed at increasing savings or expanding profits through added capacity can also be considered as evaluation systems.

The first step to create an expert system is to build a knowledge base. In this case the knowledge base must include:

1. A TITLE followed by the name of the knowledge base.
2. An outline of the objectives to be analyzed by the program or, in AI jargon, a numbered list of goals for the inference engine to work on.
3. One or more "IF...THEN" statements, known as "rules."
4. The word END.

The tutorial starts out with a simple knowledge base (to determine whether you should stay home or go to work):

```
TITLE  Going to work
1.     Go to work
RULE   for no vacation days left
IF     You have no vacation days left
THEN   Go to work
RULE   for terrible weather
IF     The weather is terrible
THEN   Go to work
END
```

This package provides you with an editor (or you can use your own) as well as a compiler (that will convert the knowledge base into a form that the computer program (known as the "inference engine") can work on.

The three parts of the expert system are: (1) the compiled knowledge base, (2) the program (or "inference engine"), and (3) space in working memory.

When you run the program, several things happen in sequence.

1. First of all, the program clears working memory.

2. Next, the inference engine picks an objective (or "goal") to work on from the list of goals in the knowledge base. In our case, the first goal is "Go to work."

3. The program (or "inference engine") then looks for the first rule whose THEN part (or "conclusion") matches the current goal; if there aren't any then the program gives up on this goal and tries another goal. In our example, it finds that the THEN part or conclusion of the RULE "for no vacation days left" is "Go to work" which is the same as the current goal: "Go to work."

4. Now that a match has been found, the inference engine tries to establish the truth of the IF part of the current rule. If the inference engine can show that "You have no vacation days left" is true, then it will be able to reach the conclusion "Go to work."

5. The program checks working memory to see whether it is already known that "You have no vacation days left" is true or not. The program does not find an answer.

6. Now the program looks for an IF-THEN rule that might establish the truth or falsity of "You have no vacation days left," but once again it does not find an answer.

7. Since the data base cannot answer YES or NO to the question "You have no vacation days left" the only solution is to ask the user. A screen appears asking for user input.

8. If the user answers TRUE then the IF part of the rule has been proven, the rule is executed, and the goal "Go to work" is achieved. The program then stops.

9. If, however, the user answer FALSE to the question "You have no vacation days left" then the rule fails. In that case the program goes back to step 3 using the rule "for terrible weather," and proceeds through step 8 or 9 looking for an answer.

We can combine all these assumptions into a formula that says: PROJECT MERIT = RELATIVE NEED * (ANNUAL PROFIT OR SAVINGS / (INVESTMENT + DEVELOPMENT COSTS))

A program for an evaluation of this type could be:

```
TITLE R&D Project Evaluator
1.    no go
2.    go
RULE  1
IF    hurdle value := 1
AND   time frame in months > 6
AND   project type IS consumer capacity
THEN  no go
RULE  2
IF    time frame in months > 12
AND   project type IS high tech
OR    project type IS industrial capacity
THEN  no go
RULE  3
IF    project merit > hurdle value
THEN  go
ELSE  no go
END
```

Within the program we can replace the "hurdle value" with our arithmetic formula.

One final touch is the ability to add confidence factors when responding to a prompt from the program. In real world applications, decisions are often made on the basis of uncertain or unreliable information. To model such situations, many expert systems will accept facts that are not completely true or completely false, but are believed with a greater or lesser degree of confidence.

In this package the user can allow for confidence factors by placing a control statement "CONFIDENCE ON" ahead of the goal outline. This way, if you are only 90% sure, or even only 75% certain, you can qualify your statements.

The aim of this package is to let you: (1) apply a structured methodology to the solution of expert systems problems, (2) write knowledge bases for both troubleshooting systems and evaluation systems, (3) control the selection of goals, (4) set up a knowledge base to reach more than one conclusion, and (5) build a custom interface for an expert system application.

The vendor is Level Five Research in Indialantic, Florida 32903 at 305/729-9056. If you do nothing more than print out the tutorial you will gain some idea of why expert systems are rapidly gaining ground in commercial applications. And you will also understand why many vendors of dedicated hardware LISP machines are going belly up.

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DUNZHIN

programed by Randall Don Masteller

Neil Van Oost, Jr. - JACG

"Dunzhin" is a fantasy role-playing game with graphics, put out under the Screenplay(tm) label. It can be played on 400, 800 and XL/XE Atari's -- the back side of the disk also has the Commodore 64 version.

Expect to be killed off early in the first few games, until you get the hang of things. Entering the "Dunzhin" you will be asked if you want to play a saved game, up to five games can be saved on the disk. You also have the capability to play a saved character, also up to five can be stored on the disk.

Upon entering the "Dunzhin" you will be equipped automatically with your crystal ball, which holds a map of were you have been. Pieces of the map are added as you move through the different levels. Other equipment you will have, includes a full warrior's garb -- sword, a full suit of armor, a treasure pouch, and a magic wand. A word of advice here, save the use of your wand for those tight spots as it can become quickly depleted, and places to recharge it are a piece apart.

The object of the quest, which is different each game, is spelled out for you at the beginning before you enter the maze. You should aquaint yourself with the "Warriors of RAS"(tm) manual as it has a wealth of information, which will help you survive.

"It is dark in the dungeons; your foes are many and deadly, and they prey on the unwary. As you learn, growing faster, stronger, and more cunning, you may find your way deeper into the blackness. The crystal ball judges your skill -- you begin as a Level 1 Warrior. It is written that boldest, most cunning and most able of adventurers can attain the rank of a Level 20. What does not kill you makes you stronger, if you can defeat it in battle."

Game play was very good and the commands are easily remembered after the first few games. You can type help at the action prompt at any time and the menu of commands will be displayed. Along your travels you will encounter: Harpies, Ogres, Griffons, Trolls, Ghouls, and Elves to name a few.

Over all I would give "Dunzhin" four stars. It would have been five, but occasionally the program fails to load due to the heavy protection on the disk. I found that removing the disk and powering the drive off and on helps when this occurs. I have to stop here now as I see a Cavebear comming round the corner, with blood in his eyes

-- I think he plans on having me for lunch.

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HOT ATARI NEWS
BEST OF ZMAGAZINE NEW JERSEY

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